

Action to limit global warming to 2°C will create jobs

The long-term goal of the 2015 Paris Agreement is to keep the increase in global average temperature to less than 2°C above pre-industrial levels. The Agreement aims to help countries meet this target and strengthen societies' capacities to address the wide-ranging impacts of climate change. The employment estimates in this report suggest that the net effect on job numbers will be positive. The transition to a green economy will inevitably cause job losses in certain sectors as carbon- and resource-intensive industries are scaled down, but they will be more than offset by new job opportunities. Measures taken in the production and use of energy, for example, will lead to job losses of around 6 million as well as the creation of some 24 million jobs. The net increase of approximately 18 million jobs across the world will be the result of the adoption of sustainable practices, including changes in the energy mix, the projected growth in the use of electric vehicles, and increases in energy efficiency in existing and future buildings. In order to ensure a just transition, efforts to promote the green economy must be accompanied by policies that facilitate the reallocation of workers, advance decent work, offer local solutions and support displaced workers.

A transition to agricultural sustainability and a circular economy will result in more and often better jobs

The adoption of more sustainable agricultural policies can create wage employment in medium and large organic farms, and allow smallholders to diversify their sources of income through a transition to conservation agriculture. With complementary policies to support workers, adopting conservation agriculture can help sustain a structural transformation in developing countries. In parallel, embracing a circular economy that emphasizes the reuse, recycling, remanufacture and repair of goods will create around 6 million new employment opportunities across the world as such actions replace the traditional model of "extract, make, use and dispose".

The transition is urgent, given the unsustainable pressure of current economic activity on the environment

Substantial progress was achieved during the period between 2000 and 2015 in the global economy and in the promotion of decent work, especially in the form of a reduction in working poverty and child labour. But wage growth has stagnated and, to a large extent, inequality has risen. Moreover, it is striking that in a context of scarce resources and limited ability to absorb waste, current patterns of economic growth rely largely on the extraction of resources, manufacturing, consumption and the generation of waste. In 2013, for example, humanity used 1.7 times the amount of resources and waste that the biosphere was able to regenerate and absorb. Indeed, human activity has already caused irreversible environmental change on a global scale.

Jobs rely heavily on a healthy and stable environment and the services it provides...

From a jobs perspective, environmental sustainability is critical. In fact, the increasing frequency and intensity of natural disasters associated with human activity have already lowered productivity. Annually, between 2000 and 2015, natural disasters caused or exacerbated by humanity resulted in a global loss of working-life years equivalent to 0.8 per cent of a year's work. Looking ahead, projected temperature increases will make heat stress more common, reducing the total number of working hours by 2.0 per cent globally by 2030 and affecting above all workers in agriculture and in developing countries. The damage associated with unmitigated climate change will therefore undermine GDP growth, productivity, and working conditions. Local air, water and soil pollution and other forms of environmental degradation negatively affect workers' health, income, food and fuel security, as well as their productivity. This negative impact can be reduced by the adoption of specific policy measures, including occupational safety and health measures, social protection policies and other actions designed to adapt to a changing environment.

Executive summary 1

... which highlights the critical nature of the transition to environmental sustainability for the world of work

Currently, 1.2 billion jobs rely directly on the effective management and sustainability of a healthy environment, in particular jobs in farming, fishing and forestry dependent on natural processes such as air and water purification, soil renewal and fertilization, pollination, pest control, the moderation of extreme temperatures, and protection against storms, floods and strong winds. Environmental degradation threatens these ecosystem services and the jobs that depend on them. The effects of environmental degradation on the world of work are particularly acute for the most vulnerable workers. Workers from lower-income countries and Small Island Developing States, rural workers, people in poverty, indigenous and tribal peoples and other disadvantaged groups are affected the most by the impact of climate change. The transition to a green economy is not only urgent for the sake of the planet but is also compatible with improvements in decent work. A key finding of this report is that some countries have succeeded in improving labour market outcomes while at the same time decoupling growth from carbon emissions.

Complementary policies can promote employment and mitigate the effects of climate change

Although climate change mitigation measures may result in short-term employment losses, their negative impact on GDP growth, employment and inequality can be reduced through appropriate policies. Climate change mitigation could bring down slightly the share of women in total employment unless action is taken to reduce occupational segregation, as employment gains associated with the 2°C scenario are likely to create jobs in currently male-dominated industries (renewables, manufacturing and construction). Coordination between the social partners can reduce inequality and promote efficiency gains, while coordination at the international level is necessary to achieve meaningful cuts in emissions. Certain mitigation policies (such as limiting the increase in temperature, for example by promoting renewable energy) may act as an incentive for enterprises to develop and adopt more efficient technology, thereby boosting employment in key occupations, as well as productivity. Adaptation policies (e.g. converting to climate-resilient agriculture practice) can also create jobs at the local level.

The legal framework can provide incentives for greening the economy, while ensuring decent work

Legal standards can promote progress towards decent work during and beyond the transition to environmental sustainability. By virtue of their broad acceptance and universal relevance for workers, workplaces and the various sectors, international labour standards provide a social pillar for the green economy and can help to ensure that emerging sectors offer decent working conditions. In addition, ILO standards on occupational safety and health contribute to the preservation of the environment. The Indigenous and Tribal Peoples Convention, 1989 (No. 169), which requires environmental impact assessments to be carried out in relation to development activities that may affect that population, the Prevention of Major Industrial Accidents Convention, 1993 (No. 174), and the Employment and Decent Work for Peace and Resilience Recommendation, 2017 (No. 205), among others, address environmental issues directly.

Multilateral environmental agreements (MEAs), which are binding agreements between States dealing with environmental matters, increasingly include labour dimensions such as the importance of environmental rights at work, employment protection and promotion. They place particular emphasis on occupational safety and health standards. At the national level, environmental legislation and policies increasingly incorporate labour issues. In 19 of the 26 national legal frameworks reviewed for this report, climate change policies contain labour considerations, including complementary skills policies and job creation. Sector-specific environmental legislation also tends to cover employment and decent work issues. The strong links between environmental regulation and labour issues are also more and more evident in sub-Saharan Africa in the renewable energy and waste management sectors.

Social dialogue contributes to ensuring that the green transition is a just transition

Social dialogue has contributed to making environmental governance more labour-friendly by promoting frameworks, legislation and policies that include both labour and environmental concerns. This illustrates the priorities established by the UN Agenda for Sustainable Development and the principles embedded in international labour standards, including the importance of consultation and collective bargaining. At the international level, international framework agreements (IFAs) are voluntary agreements between multinational enterprises and global union federations. Of the 104 IFAs reviewed for this report, 61 include environmental provisions on such issues as respect for the environment as a corporate responsibility and waste management measures, particularly in the manufacturing, energy, mining and automotive industries. At the national and enterprise level, while the number of collective agreements containing green clauses is still limited, they are used by employers and workers to reconcile social and economic objectives with environmental concerns. Emerging examples indicate that workers and employers, through social dialogue, have identified areas where the environmental impact could be mitigated without reducing or negatively affecting employment or working conditions. In the longer term, the protection of environmental rights at work could also be strengthened in national policies and legislation.

Synergies between social protection and environmental policy can support both workers' incomes and the green transition

Social protection systems are the first line of protection against the negative effects on income of different risks, including those stemming from climate change and local environmental degradation. They support the economy by stabilizing household incomes. Four policy areas offer particular synergies between social protection and environmental sustainability: unemployment protection, cash transfer programmes, public employment programmes (PEPs) and payments for ecosystem services (PES).

Unemployment protection schemes and cash transfer programmes play a critical role in supporting workers facing job loss related either to the transition to environmental sustainability or to a natural disaster. They facilitate the transition to new jobs, particularly when combined with skills development and job placement or relocation measures. In addition, access to safe and regular labour migration opportunities can foster economic diversification and increase adaptive capacity through remittances and skills transfer. Cash transfer programmes contribute to preventing poverty and reducing the vulnerability of households and communities.

PEPs too can be powerful tools to address the impact of climate change on workers and their incomes, while also enhancing mitigation. Half of the 86 PEPs in 62 countries surveyed include an environmental component. They often provide health care, education and other benefits. Similarly, PES, although originally conceived with an environmental objective, can provide effective support for household incomes in specific circumstances.

A policy mix comprising cash transfers, stronger social insurance and limits on the use of fossil fuels could lead to faster economic growth, stronger employment creation and a fairer income distribution, as well as lower greenhouse gas emissions.

Although skills development programmes for enterprises and workers facilitate the transition to a green economy, they are yet to be mainstreamed in policy discussions

Skills development programmes are crucial to the achievement of a just transition. Of the 27 countries surveyed, about two-thirds have established platforms to anticipate skills needs and the provision of training in general, but they are not all used to discuss the skills implications of the green transition. The active participation of social partners is useful in identifying skills gaps, implementing training provisions, emphasizing that higher skills translate into higher pay, and recognizing the skills acquired on the job. However, social partners are not always involved in the relevant discussions; this is especially the case of workers. Where they exist, specific bodies to discuss skills for the green transition have led to positive changes in training for the sectors directly involved in the transition (such as renewable energy and waste management), but they have comparatively little influence on the greening of the economy as a whole.

Executive summary

National environmental legislation increasingly refers to skills development but the provisions are often limited to specific skills policy areas (such as the identification of skills needs), target groups (e.g. youth), sectors (especially energy) or regions. Consensus has not yet been reached in many countries on the definition of skills for the green transition and the capacity is lacking to collect relevant data for reliable skills identification. As a result, skills development policies for the green transition tend to adopt a short-term and fragmented approach. Greater awareness of environmental issues and their mainstreaming in skills policy discussions are required to ensure that identification of skills needs and implementation of training programmes respond to labour market needs.

Institutions, policy-making and effective implementation are key for a just transition

Social dialogue, the elimination of discrimination in employment and occupation, and good governance are the foundations of an effective and just transition. For example, the involvement of central and local governments, social partners and NGOs in debates on climate change at the national level has led to the integration of economic, social and environmental objectives. Tax reform can support the transition to a green economy, while at the same time facilitating employment creation.

Low-income and some middle-income countries need support to develop data collection, identify and adopt best practices, strengthen implementation and finance both mitigation and adaptation strategies in order to achieve a just transition to environmentally sustainable economies and societies for all. A just transition requires identifying and implementing policy solutions to some of the most pressing challenges to the future of work that also affect climate change, such as employment and working conditions in the rural economy, demographic shifts and globalization.

A just transition offers enhanced potential for decent job creation through the integration of labour and environmental issues

This ILO report quantifies job losses and job creation in the transition to a green economy, based on projections to 2030 founded on the agreed policy goal of limiting global warming to 2°C. More generally, it finds that the greening of economies can have a positive overall effect on growth and jobs. Positive employment outcomes will also probably apply in the 1.5°C scenario, as encouraged by the Paris Agreement.

The report shows that environmental laws, regulations and policies that include labour issues offer a powerful means of integrating elements of the Decent Work Agenda with environmental objectives. This is true for social protection programmes, skills development programmes, macroeconomic policy and the legal framework. Though some degree of integration is observed in all these domains, it is not yet systematic and not yet universal. For example, while environmental legal frameworks can be effective in combining some elements of the Decent Work Agenda with environmental objectives, the respective provisions often focus on particular groups of workers (such as additional support for local communities, training in areas that are key for the transition, and the protection of workers in specific sectors). The transition affects all workers, however; the universality of rights and protection therefore remains important to ensure that the transition delivers inclusive growth and decent work.